

From boatanchors@theporch.com Wed Nov 22 22:27:00 1995
From: BHall88620@aol.com
Subject: Re: " CRUMMY " meters
Message-ID: <951122153446_114059234@mail04.mail.aol.com>

In a message dated Tue, 21 Nov 95, Thomas Clarke writes:

>I thought you meant "CRUMMY" as in the two meters I have
>from SX24's whose cases have split apart, sort of banana
>peel fashion. I was beginnig to think this afflicted old
>transmitters as well as old Hallicrafters receivers.
>By the way does anyone have a fix for this? I've been working
>up to gluing the staves of the case back together, but maybe
>there's a better fix?

My SX-24 suffers from the same problem. The S-meter has peeled open like it was a banana... As far as a fix, I don't think you will be able to glue it back together. Mine appears to be made of brass, so maybe if you made a jig you could solder it back together? How far gone is yours? The splits on mine almost reach the front panel of the set...

Appears to have been a manufacturing defect. My guess would be that they rolled these housings and never removed the residual stresses afterwards, which is why they are splitting now. Ugh.

Let me know what works for you are far as getting it fixed. Someday I'll get around to fixing mine...

73,
Ben

BHAll88620@aol.com

From boatanchors@theporch.com Wed Nov 22 22:27:00 1995
From: jmartin@hrlban1.aircrew.asu.edu
Subject: '01A as an x-ray source
Message-ID: <SA39+eLtgka@hrlban1.alhra.af.mil>

EKnobloch@aol.com wrote:
>In the late 50's, Scientific American had an "Amateur Experimenter" article
>about a do-it-yourself X-ray machine.

I have the article describing this machine... it was published in the Scientific American Book of Projects for the Amateur Scientist (long out of print). The prototype machine used an '01A tube, still under vacuum, as the x-ray tube; the upper half of the glass was wrapped with aluminum foil which was grounded. All four pins touched the output terminal of an Oudin coil, sort of a

cross-breed between a Tesla coil and induction coil. The article included a better design for the tube, and suggested that one go to a local glassblower to have one made for perhaps \$25. (Signs of the times....) The whole thing was mounted in a steel bucket lined with lead all around, mounted on legs, and the x-rays passed through a lead trap-door which could be closed.

73, John Martin

jmartin@hrlban1.aircrew.asu.edu

From boatanchors@theporch.com Wed Nov 22 22:27:00 1995

From: Henry van Cleef <vancleef@bga.com>

Subject: Re: 1st scope project(s)

Message-ID: <199511221654.KAA01498@zoom.bga.com>

As Mark60195@aol.com said

>

> Last sunday I attended a auction and picked up a HP 130B scope in
> what appears to be working condition and a Tek 545A with a Type
> 53/54D plugin (?) that need tubes.
> The 545A looks intact with the exception
> of a broken tube that appears to have some type of thermal relay in it.
> Is this scope worth rebuilding and where might I find a replacement
> relay, power cord and probes for it.
>

Yes, a copy of Stan's book is a "must have" if you are going to do old
Tek scopes. I'm not familiar with the HP scopes.

On the Tek stuff, a 545A is a great scope, and definitely worth fixing.
The time delay relay is an Amperite 6N045T. Newark sells the Belden
cordsets for power, although you generally can get one of the red
extensions to work. Probes are expendable items, always broken, and
you're generally stuck getting new ones. Mouser has them for about \$55
for two. Good Tek probes are more expensive. The D is a low bandwidth
high gain differential amplifier, not too good for general use. Look
around for CA, G, and K plug-ins. These will give 24, 20, and 30 Mhz.
bandwidth with a 545A, and are ideal for general use. The "53/54"
prefix was used in the 1950's, but the plug-ins are essentially the
same except the 54/54C, which didn't have the "algebraic add" mode that
was added in the CA. You can also use any of the "1A" plugins in a
545A, but will be limited to 33 Mhz. by the scope vertical amplifier.
Fair Radio may have the time delay relay.

--

Hank van Cleef vancleef@bga.com vancleef@tmn.com

From boatanchors@theporch.com Wed Nov 22 22:27:00 1995
From: "Barry L. Ornitz" <u856010@eastman.com>
Subject: Boonton (Generic) Signal Generator
Message-ID: <Pine.ULT.3.91.951122151032.16750B-100000@dua150.kpt.emn.com>

I have an AM/FM signal generator made by Munston Manufacturing and Service, Inc., Model FM22E with FM22EP power supply. The manual indicates that it was produced for the Navy Bureau of Aeronautics. The Navy stock number for the pair was RH6625-730-3403-E212.

I have been told that this is a generic version of a Boonton (202?) or Measurements signal generator. I do not have any information on these except from some old Tucker catalogs, and the specifications do seem to match. Hewlett-Packard also made a similar generator called a 202 (Boonton) which was different from their own 202. It also appears to be very similar. I would hardly call HP a knock-off like the Hickok and Lavoie scopes. The unit covers 54 to 216 MHz.

Does anyone know what the differences are between these various units? My unit is supplied in two boxes, one for the generator and one for the power supply, which are connected by a cable. The HP unit appears to be in one case.

73, Barry WA4VZQ ornitz@eastman.com

From boatanchors@theporch.com Wed Nov 22 22:27:00 1995
From: Bob Roehrig <broehrig@admin.aurora.edu>
Subject: Re: Boonton (Generic) Signal Generator
Message-ID: <Pine.ULT.3.91.951122155241.16924A-100000@admin.aurora.edu>

On Wed, 22 Nov 1995, Barry L. Ornitz wrote:

> I have an AM/FM signal generator made by Munston Manufacturing and
> Service, Inc., Model FM22E with FM22EP power supply. The manual
> indicates that it was produced for the Navy Bureau of Aeronautics. The
> Navy stock number for the pair was RH6625-730-3403-E212.
>
> I have been told that this is a generic version of a Boonton (202?) or
> Measurements signal generator. I do not have any information on these

Barry, I once had the Boonton 202C (54-216 MHz). Still have the manual for it. The supply was separate and had a ballast tube and supplied DC to at least some of the filaments. I remember that supply giving me a lot of trouble. The generator worked fine.

73 de Bob, K9EUI

From boatanchors@theporch.com Wed Nov 22 22:27:00 1995
From: clarke@next3.acme.ist.ucf.edu (Thomas Clarke)
Subject: Degassing Tubes? (Re: Re lightbulbs)
Message-ID: <9511221937.AA19435@next3.acme.ist.ucf.edu>

Duncan ON9CHU / G0UTY wrote:

>Saw it in an old science textbook, you put one of these
>old vacuum lightbulbs in molten caustic soda, stick an anode in the
>soda, B-
>to the filament (independantly heated) and hey presto sodium ions
>diffuse

through the glass and you get a mirror of sodium on the inside.

What if you did this with a gasy vacuum tube instead of a light bulb.
Might the layer of sodium might act as a getter and restore the
tube to function?

Might be worth the trouble on some rare old tubes.

Tom Clarke
KE4VFH

From boatanchors@theporch.com Wed Nov 22 22:27:00 1995
From: Bill Sorsby <bill.sorsby@dlepl.itg.ti.com>
Subject: Re: Degassing Tubes? (Re: Re lightbulbs)
Message-ID: <199511221906.NAA09793@dlepl.itg.ti.com>

At 12:43 PM 11/22/95 -0600, you wrote:

>Duncan ON9CHU / G0UTY wrote:
>
>>Saw it in an old science textbook, you put one of these
>>old vacuum lightbulbs in molten caustic soda, stick an anode in the
>>soda, B-
>>to the filament (independantly heated) and hey presto sodium ions
>>diffuse
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>through the glass and you get a mirror of sodium on the inside.

>
>
>
>What if you did this with a gasy vacuum tube instead of a light bulb.
>Might the layer of sodium might act as a getter and restore the
>
>tube to function?
>
>Might be worth the trouble on some rare old tubes.
>
>Tom Clarke
>KE4VFH
>
>

Fascinating discussion. Am anxiously awaiting results from someone's trial. Maybe something like this could be used to make those gassy (but new) Chinese tubes usable. Good investment opportunity here... Stock up on cheap Chinese tubes, fix 'em and sell for a premium price as good NEW tubes. (He said, tongue firmly in cheek, not believing a word of it.)

Regards,
Bill Sorsby, N5BU

bill.sorsby@dlepl.itg.ti.com

From boatanchors@theporch.com Wed Nov 22 22:27:00 1995
From: bill@texan.frc0.com (William Hawkins)
Subject: Re: Degassing Tubes? (Re: Re lightbulbs)
Message-ID: <9511221932.AA09143@texan.frc0.com>

Can't find a handbook of chemistry and physics right now, but I don't think molten caustic soda is suitable for home projects. As to sodium as a getter, highways are lit with sodium lamps, which means you get an ionizable cloud of sodium vapor in the lamp, like mercury vapor.

Why can't a tube be degassed by pulling a better vacuum on it? Would it need a new getter deposit, or could you rejuvenate the old one with heat? Seems like rebuilding old tubes has got to be more practical than starting from scratch.

Happy turkey day to those of you that do that; the rest of you can give thanks that you don't.

Bill Hawkins

From boatanchors@theporch.com Wed Nov 22 22:27:00 1995
From: KB9VU@aol.com
Subject: Electronic Measurements Corp.
Message-ID: <951122164733_87782521@emout06.mail.aol.com>

I have an EMC model 215 Tube and Transistor tester that I picked up from a Ham last month that is in nice shape and appears to work. Problem: No Manual or charts.

The manufacturer's label indicates:

ELECTRONIC MEASUREMENTS CORP.-NEW YORK-U.S.A.

Does anyone in the group have any documentation on this tester? Be glad to reimburse for copy cost and postage.

Thanks!

Mike, KB9VU

From boatanchors@theporch.com Wed Nov 22 22:27:00 1995
From: aculbert@pps1-po.phyp.uiowa.edu
Subject: FS: ANTENNA MANUAL
Message-ID: <199511221810.MAA11438@ns-mx.uiowa.edu>

I have for sale an extra copy of:

ANTENNA MANUAL

It is hardbound, has 306 pages, with a Copyright date of 1948. It was published by Editors and Engineers and edited by Woodrow Smith.

The book is in very good condition, spine is good, no frays, no torn pages, no names written inside the cover, etc.

I am asking \$15 plus a couple bucks for shipping in lower 48.

Al, KOAL allan-culbert@uiowa.edu

From boatanchors@theporch.com Wed Nov 22 22:27:00 1995
From: jmartin@hrlban1.aircrew.asu.edu
Subject: Gassy Chinese tubes
Message-ID: <SA39+Q8tgka@hrlban1.alhra.af.mil>

John Shriver wrote:

They have to heat the plate hotter (via RF induction heating) and longer while they pump the vacuum. Also, they probably have to improve the plate metallurgy so that it gives up the residual gas more generously during this hot pumping stage.

=====

If they outgas that much in that short a period, it sounds like there would not be enough glass surface area available inside the tube to deposit the extra amount of getter needed to solve this problem. A metal surface in a vacuum can release an astonishing amount of gas when heated, and dirty metal surfaces (i.e., contaminated with hydrocarbons) hold more gas than clean ones. I think you're right about the RF induction heating... probably too little of it to outgas the tube while it is being pumped. Consider some of the higher power transmitting tubes made domestically which have no getter deposited on the glass at all... evidence of a very good job of heating and outgassing the tube before sealing off. It can be done if one cares enough.

73, John Martin

jmartin@hrlban1.aircrew.asu.edu

From boatanchors@theporch.com Wed Nov 22 22:27:00 1995

From: "Barry L. Ornitz" <u856010@eastman.com>

Subject: Glue for Delrin Pots in Tek Scopes

Message-ID: <Pine.ULT.3.91.951122150423.16750A-100000@dua150.kpt.emn.com>

Delrin is an acetal plastic. I would expect methyl ethyl ketone (MEK), methyl isobutyl ketone (MIBK), ethyl acetate, and perhaps even acetone to solvent weld it together quite well. Clamping the parts together with the minimum of solvent as Stan described is probably optimal.

73, Barry WA4VZQ ornitz@eastman.com

From boatanchors@theporch.com Wed Nov 22 22:27:00 1995

From: johnmb <johnmb@nando.net>

Subject: Glyptol Solvent

Message-ID: <Pine.SUN.3.91.951122153532.6487A@parsifal.nando.net>

I need to attack some slug tuned coils that have been slathered with Glyptol... is there a solvent for this stuff?

/john
wb5oau/4

From boatanchors@theporch.com Wed Nov 22 22:27:00 1995
From: BHall88620@aol.com
Subject: Re: Hickok VMK-4 VTVM schematics anyone?
Message-ID: <951122153449_114059282@emout04.mail.aol.com>

>Ahah! I've got several of these too, acquired from yard sales in the
>late 70's. This is the unit with the funny screw-on probe jack, right?
>If you didn't get the probe with your unit, I'm pretty sure you
>need one with a 1 Megohm resistor in it. Somebody please correct me
>if I'm wrong and what you really need is a 9.09 or 10 Megohm resistor...

Hello Tim...

None of them have screw on banana plug jacks, just the standard type. I
can't comment on what the probes looked like, as I didn't get any.

Cleaned one of them up last night, doing all the normal stuff. Fixed the
rotary selection switch which had become sloppy due to the detent spring disk
not being firmly attached to the main shaft. Also cleaned all the contacts
with alcohol and about a million Q-Tips. Fired it up and it worked great.

Using just plain probes from another meter, everything seems to work
correctly. DC volts is right on, according to my digital meter. Ohms seems
to be correct as well, but haven't done a whole lot of testing, just spot
tested a few I had laying around and the VTVM and my digital VOM agreed.

Hank van Cleef also suggested that the meter might need something along the
line of 10 MegOhms resistance in the probes, so I dug out some 1 Meg and 10
Meg resistors and put each in series with the probe. With both the 1 Meg and
10 Meg in series with the + probe, calibration was way off and I couldn't
zero the meter in the Ohms position. So, I think that these ones may not
need the resistor in the probes, but I am not sure...

>I've never seen a schematic for this actual unit, but if I remember
>correctly the circuit in the Hickok is almost exactly the same as the
>circuits you see for VTVM's in many of the vacuum tube manuals. There
>aren't too many ways to build a basic VTVM, after all! The resistor
>chains and meter movement current may be a bit different, but the basic
>principle has to be the same.

I'll have to wait and see if this meter has a schematic similar to the one in
the RCA tube manual, which is coming for Christmas... For now, I am probing
around and making up my own schematic...

>The first step to repairing one of these is to get the balance good enough
>that you can zero the unit. Then work on DC volts, then AC volts, then
>finally the ohmmeter part. Most VTVM's had a battery inside for the
>ohmmeter function; by the time they get to me (after maybe a decade
>or two of storage) the battery has leaked all over the inside of the case.

>When you replace it, use a quality battery with a nice metal case -
>an alkaline is ideal because of their long shelf life. Also what often
>needs replacement is the clip that the battery is held in by - this
>is often corroded away completely by battery leakage. In the past I've
>just gone to Radio Shack and gotten a plastic battery holder and glued
>it in place, but a more authentic "restoration" would probably involve
>fabricating a new clip out of metal and riveting it in.

Surprisingly enough, the few I opened up still had the batteries intact, with no acid leakage, which made me very happy. Replaced the Eveready "C" cell with a fresh one... The old battery had a price of \$0.25 on it, which means it wasn't really that old. I am going to dig further in coming soon, so I'll let y'all know how it is going...

Thanks for the advice and tips!

73,
Ben

BHall88620@aol.com

From boatanchors@theporch.com Wed Nov 22 22:27:00 1995

From: "Turini, Bill" <turinib@wdni.com>

Subject: Interesting Places in Cleveland-Toledo?

Message-ID: <199511221655.AA03316@interlock.wdni.com>

I find myself making a trip to Sandusky Ohio (midway between Cleveland and Toledo). Anyone have any interesting BA/Surplus places in either city, or near. I know Fair Radio, having spent some time in Lima, but that's a bit too far for just a casual jaunt for a day.

TIA

Bill KA4GAV/7 turinib@wdni.com

From boatanchors@theporch.com Wed Nov 22 22:27:00 1995

From: Emil Switzer <SWITZER+_E%A1%Electromagnetic_Sciences@mcimail.com>

Subject: Re lightbilbs

Message-ID: <31951122134413/0006082972NA4EM@MCIMAIL.COM>

FROM:BLINCOE_H
MBX:BLINCOE_H
MBX:A1
MBX:CLUST

EMS:ELECTROMAGNETIC SCIENCES

DATE: Fri Nov 17, 1995 4:18 pm

SUBJECT:Tubes from light bulbs

*TO:SWITZER_E

MBX:SWITZER_E

MBX:A1

MBX:CLUST

EMS:ELECTROMAGNETIC SCIENCES

You might tell the BA bunch that since the early 1900s light bulbs are not made to withstand a vacuum. They are filled with an inert gas like argon. They are pretty close to atmospheric pressure at sea level, I think.

The strength of the glass need be far less and the heat from the filament is conducted to the surface more readily. A lot cheaper to make, too.

In times past I have come across a few light bulbs that did have a vacuum... they broke rather violently, compared to present day bulbs. (Imploded, is the proper term, I believe.) Haven't seen any in many years, though.

From boatanchors@theporch.com Wed Nov 22 22:27:00 1995

From: Duncan Cadd <dcadd@luc.ac.be>

Subject: Re lightbulbs

Message-ID: <9511221516.AA24168@alpha.luc.ac.be>

Greetings, Anchorites, from a dull but dry Diepenbeek in N.E. Belgium!

Emil sez:

> You might tell the BA bunch that since the early 1900s light bulbs are not
> made to withstand a vacuum. They are filled with an inert gas like argon.
> They are pretty close to atmospheric pressure at sea level, I think.

>

> The strength of the glass need be far less and the heat from the filament
> is conducted to the surface more readily. A lot cheaper to make, too.

>

I was once told that the POWs in Colditz made their own diode detector by simply putting tinfoil on the outside of one of these bulbs. Presumably there's sufficient leakage through soda glass for this to work. I know what does work, though. Saw it in an old science textbook, you put one of these old vacuum lightbulbs in molten caustic soda, stick an anode in the soda, B-to the filament (independantly heated) and hey presto sodium ions diffuse through the glass and you get a mirror of sodium on the inside. Can't do that with modern ones.

73,

Duncan ON9CHU / G0UTY G-QRP 8117

From boatanchors@theporch.com Wed Nov 22 22:27:00 1995

From: EKnobloch@aol.com

Subject: Re: Lightbulbs

Message-ID: <951122154003_31038502@emout04.mail.aol.com>

In the late 50's, Scientific American had an "Amateur Experimenter" article about a do-it-yourself X-ray machine, starting with an old style vacuum-filled (unfilled?) light bulb. They wrapped the glass envelope with aluminum foil, which was attached to the positive H.V. supply, the negative end was returned to the center tap on the transformer supplying the light bulb. A pin hole in the aluminum foil then became the X-ray source. They published photos of the X-rays you could get with this set-up, including one of a nail in a piece of wood.

Can you imagine the lawsuits that would result if that article were printed today, after a kid basement experimenter gets his younger brother to look into the pin hole of the operating X-ray tube?

From boatanchors@theporch.com Wed Nov 22 22:27:00 1995

From: "Nickels, Bob" <RNickels@P16.IL50.micro.honeywell.com>

Subject: Re: Lightbulbs

Message-ID: <30B39A1B@mail_gw.micro.honeywell.com>

>Can you imagine the lawsuits that would result if that article were printed
>today

You said it! I recently bought the "Boy Electrician" book reprint from Lindsay that was mentioned on this list. Lots of interesting little home projects in there, with battery acid, blowtorches, line voltage, etc. Makes you painfully aware of how the legal profession has prospered over the past 60 years...

From boatanchors@theporch.com Wed Nov 22 22:27:00 1995

From: "Dick Dillman" <ddillman@igc.apc.org>

Subject: NC-100 & Command Set Transmitters Available

Message-ID: <199511222123.NAA17897@igc3.igc.apc.org>

Several months ago I had the opportunity to visit a woman who was

disposing of her recently deceased husband's radio collection. He was primarily an Atwater-Kent man but there were some BAs as well. None of them were of interest to me, but I got a call from her the other day asking if I might help find buyers for the remaining heavy metal. The deal is this:

She does not want to handle calls from a large number of buyers and has asked me to act as sort of a middle man (I have no personal or financial interest in this, beyond wanting to help a very nice lady). In addition, I get the impression that shipping is not a possibility so those interested would have to be within driving range of Davis, CA.

The items I noticed that might be of interest of my fellow list members were:

National NC-100 (see page 22 of ER No. 79). This radio appeared to be complete and unmodified. There was no power supply I could see and there was a wear circle around the band change knob.

Command set transmitters. I'll have to apologize for a lack of detail on these as they are not my "thing", but there were several, all apparently unmodified, some with the black wrinkle finish.

I must ask, since she asked me, that only those genuinely interested in this equipment come to see it. My impression is that she wants to avoid a flea market-type scene. Plus she has a German shepherd that kept trying to bite my butt as I was looking at the radios.

With the above in mind, those interested in looking at this gear may contact me by email at the address below for particulars.

Best Regards,

Dick Dillman/WPE2VT
<ddillman@igc.apc.org>
San Francisco

From boatanchors@theporch.com Wed Nov 22 22:27:00 1995
From: Scott_Johnson-AZAX60@email.sps.mot.com
Subject: Needed! Halli S-29 manual c
Message-ID: <"Macintosh */PRMD=MOT/ADMD=MOT/C=US/"@MHS>

Needed! Halli S-29 manual copy
Does anyone out there have a manual for a Hallicrafters S-29? I could sure use a copy, or at least a schematic.

73, Scott KC7BGE

From boatanchors@theporch.com Wed Nov 22 22:27:00 1995
From: paul Veltman <veltman@netcom.com>
Subject: Re: REVIEW: POCKET GUIDE TO COLLINS AMATEUR RADIO EQUIPMENT 1946-1980
Message-ID: <Pine.3.89.9511221432.A2185-0100000@netcom11>

I'll second that review. I just pulled in from LA and it was in the mail. From my quick look at it, this is a first class production all the way.

My only comment is that I wish that they had included production quantities. Or maybe I just haven't found them yet. These kinds of stats would help me determine the rarity of my 312B-5 and PM-2, neither of which I often see.

3 cheers for Jay Miller and his efforts.

Paul WA6OKQ

From boatanchors@theporch.com Wed Nov 22 22:27:00 1995
From: jmartin@hrlban1.aircrew.asu.edu
Subject: Sodium diffusion, continued...
Message-ID: <SA39+Vnrgka@hrlban1.alhra.af.mil>

Bill Sorsby wrote:

Maybe something like this could be used to make those gassy (but new) Chinese tubes usable.

=====

I've never run a Chinese tube in any gear I own, but I've heard it said that the element structures in some of their types release gas when they're pushed a bit. Has anyone observed whether one of these tubes, after being pushed, shows any clouding of the getter layer? Have any of you gotten a Chinese tube that was gassy new out of the box?

73, John Martin
jmartin@hrlban1.aircrew.asu.edu

From boatanchors@theporch.com Wed Nov 22 22:27:00 1995
From: John Shriver <jas@shiva.com>
Subject: Re: Sodium diffusion, continued...
Message-ID: <199511222014.PAA08742@shiva-dev.shiva.com>

I've used Chinese tubes. The problem is that the plates of the power tubes outgas, even at normal operating temperatures. We're talking

about generating gas in a 6CA7 running with a completely black plate, no color at all, no over-dissipation.

The plate is, of course, running warm under these conditions. The flash getter is not nearly enough to keep up with this sort of gas generation. After a few hundred hours, they look like a Tung-Sol 6550 with 3000 hours on it -- not much getter flash left.

They have to heat the plate hotter (via RF induction heating) and longer while they pump the vacuum. Also, they probably have to improve the plate metallurgy so that it gives up the residual gas more generously during this hot pumping stage.

From boatanchors@theporch.com Wed Nov 22 22:27:00 1995

From: jmartin@hrlban1.aircrew.asu.edu

Subject: Sodium getter diffusion into tubes

Message-ID: <SA39+MSrgka@hrlban1.alhra.af.mil>

Following on Duncan's and Tom's posts:

>Might the layer of sodium act as a getter and restore the tube to function?

=====

I've heard of this old trick for diffusing sodium through the glass before. It just might work. Sodium isn't the best getter, but it might be reactive enough to clean up some of the gasses. Certainly worth a try, and an interesting experiment to boot. I would try it first on a not-so-rare tube. BTW, if memory serves, I think I saw an article in an old Radio News magazine (Gernsback) from the mid-1920s that told about large phototubes for the crude scanning disc/flying spot television studios of that era being made using this method.

73, John Martin

jmartin@hrlban1.aircrew.asu.edu

From boatanchors@theporch.com Wed Nov 22 22:27:00 1995

From: "Deane D McIntyre" <dmcintyr@acs.ucalgary.ca>

Subject: Re: Sodium getter diffusion into tubes

Message-ID: <9511221949.AA27066@ds1.acs.ucalgary.ca>

In message <SA39+MSrgka@hrlban1.alhra.af.mil> writes:

> Following on Duncan's and Tom's posts:

> >Might the layer of sodium act as a getter and restore the tube to function?

> =====

> I've heard of this old trick for diffusing sodium through the glass before.

> It

> just might work. Sodium isn't the best getter, but it might be reactive
> enough

> to clean up some of the gasses. Certainly worth a try, and an interesting
> experiment to boot. I would try it first on a not-so-rare tube.

I would suspect that the sodium would react with the gases and act as a getter to some extent, however the reactivity of sodium towards nitrogen is rather low. My major concern is that sodium has an appreciable vapor pressure, esp. when warm. I would guess that one may well end up with a sodium vapor lamp when the B+ was applied. The yellow/orange glow would be pretty however if this was the case! Add some mercury vapor rectifiers, VR tubes and green "eye" tubes to make a colourful display of Christmas lights:)

From boatanchors@theporch.com Wed Nov 22 22:27:00 1995
From: Bill Sorsby <bill.sorsby@dlepl.itg.ti.com>
Subject: Spun Aluminum Knob Inserts - Where?
Message-ID: <199511221435.IAA23412@dlepl.itg.ti.com>

Does anyone know where I might be able to find some spun aluminum knob inserts? The size I'm looking for is 5/8" diameter.

I picked up an old Eico 753 transceiver which is in pretty good shape. The black metal knobs are also in good shape, although the inserts are awful.

I'd appreciate any info.

Regards,
Bill Sorsby, N5BU

bill.sorsby@dlepl.itg.ti.com

From boatanchors@theporch.com Wed Nov 22 22:27:00 1995
From: jmiller@teleteam.com (Jay H. Miller)
Subject: Spun Aluminum Knob Inserts - Where?
Message-ID: <v01510103acd8990aa586@[205.198.110.20]>

Bill-
Collins users get their new spun aluminum knob inserts from Charlie Talbott K3ICH. Telephone 703-822-5643. The diameters are 5/8", 15/16" and 1 1/2". Perhaps these might do or Charlie can help.

73

Jay Miller, KK5IM

jmiller@teleteam.com

From boatanchors@theporch.com Wed Nov 22 22:27:00 1995

From: EKnobloch@aol.com

Subject: Re: SX-25 and HT-32A Info needed

Message-ID: <951122105040_113828916@mail.aol.com>

Most likely, your bias voltage needs to be set for the HT-32A.

On the top of the chassis, near the relay, you'll find a pot labeled "Bias Adj." with an adjacent test point. Depending on your shack A.C., the bias voltage should be adjusted using a high impedance voltmeter (VTVM or DMM is best, but a 20,000 ohm per volt meter is OK) as follows:

Bias	Line Voltage
-47V	112VAC
-48V	115VAC
-50V	120VAC
-51V	122VAC

This should be done with the operation switch at MOX, USB or LSB (zero signal). The finals should never show color. If you have had a failure

of the bias system, the finals would draw excessive resting current, and will become gassy.

On my HT-32B, I have found that there is quite a scattering of "correct" bias voltage settings in order to get a resting current of 20 mA per tube (40 mA for the pair). It is worth while to temporarily insert a milliammeter in the plate supply, after the bleeder resistors and before the plate rf choke, to check your 6146's for balance. DANGER 750VDC.

Maybe 6146's were manufactured with better uniformity when Hallicrafters designed the HT-32 series, which let them get away without metering the final plate current.

A good first order of business would be to pull the 5R4 and 5V4 rectifier tubes,

and see if you still get a bad transformer buzzing. That will eliminate the HV and LV

d.c., but leave the filament and bias supplies on. If you don't have bias voltage

at the test point in this condition, suspect a bad bias supply electrolytic.

The octal plug on the back doesn't require jumpers, it is used for rcvr muting connections.

You might try ordering a manual from W7FG Vintage Manuals, phone 800/
807-6146
(love that phone number).

73
Ed Knobloch K4PF

From boatanchors@theporch.com Wed Nov 22 22:27:00 1995
From: "Dick Dillman" <ddillman@igc.apc.org>
Subject: Toob Mag
Message-ID: <199511222123.NAA17889@igc3.igc.apc.org>

A friend sent me a fax yesterday about a magazine devoted to tubes.
>From the description it appears to deal primarily with the "Golden
Age of HiFi" but also contains information about current availability
of parts and tubes. Ironically, It's published in Silicon Valley.
No mail address is given but those interested may contact them at
jatwood@netcom.com or by phone at 408-733-6146 <-- hee,hee.

Best Regards,

Dick Dillman/WPE2VT
<ddillman@igc.apc.org>
San Francisco

From boatanchors@theporch.com Wed Nov 22 22:27:00 1995
From: Michael.J.Knudsen@att.com
Subject: Re: Tube Shields
Message-ID: <9511221702.AA04954@bock.ih.att.com>

Stan's posting reminds me of our discussion of those "black" tube
shields a few months ago. The R390A installation manual states that,
unless you're running the radio mobile, you should *remove* all but
a half dozen critical tube shields before operating the set!

That was written before the heat-dissipating shields came out.
My CV-157 came fully equipped with those shields, and I've transplanted a
few into the R390A in the hottest places.

A lot of military equipment shields the oscillator tubes just to keep
down the radiation -- interferes with your other sets and shows up
on the enemy's DF gear. Most consumer gear does likewise, so your
TV tuned to channel 2 doesn't wipe out channel 6 or whatever next door.

Stan mentioned the shield capacitance, mostly to the plate circuit I'd guess.
If you add or remove shields you may need to tweak the alignment,
especially on oscillators. 73, mike k w9nrd

From boatanchors@theporch.com Wed Nov 22 22:27:00 1995
From: scott@hpislst.lvld.hp.com
Subject: Re: Tube Shields
Message-ID: <199511221652.AA093679159@relay.hp.com>

Al writes:

>> A thing to remember from all this
>> garbage, If you have tube sockets that are designed for shields and
>> they are missing. (BEWARE). The dam things were put in for a reason.
>>

And Stan replies:

> Yes, they are there for a reason, but the reason MAY NOT BE because a tube
> shield should be installed over the tube. There are places in Tek scopes,
> for example, that have tube sockets installed that are made for tube shields
> that are not supposed to have a shield installed on them.

Good point! One of my Drakes (either the R4 or the T4X) appeared to have a missing shield when I bought it, so I started looking for a spare. Before i got too far, I thought to check the manual (no comments please) and lo and behold, the manual clearly indicated no shield. Drake manuals do generally have good, clear photos of both the top and underside of the chassis. I've no idea if putting a shield over that tube would affect anything or not, but clearly Drake never intended one be there.

Obviously, there are no absolutes :-)

Scott Turner KG0MR scott@lvld.hp.com

From boatanchors@theporch.com Wed Nov 22 22:27:00 1995
From: "William L. Fuqua III" <wlfuqu00@service1.uky.edu>
Subject: What is a Hallicrafters HT-12??
Message-ID: <199511221247.HAA13081@service1.cc.uky.edu>

I have a power supply for a HT-12 transmitter. It must weigh 30 lbs. But what the heck is a HT-12?

I can't find anything in my old handbook ads. It must have been produced in the late 40's.

I hope to keep it intact and maybe use it for a homebrew TX or some day I may run across
the matching Tx.

73

Bill ko4ww